2013 ANNUAL REPORT AUTOMATED TRAFFIC ENFORCEMENT FOR THE CITY OF COUNCIL BLUFFS

In compliance to the requirements of Administrative Rules 761-144 (Attachment E), this report documents the Red Light ATE program in the city on the state primary highway system.

The Council Bluffs Police Department does not have the resources to assign officers to monitor intersections for red light running. ATE offers an economical and effective deterrent to red light running.

The city ATE program consists of 13 red light cameras. The city installed 7 cameras in 2005 and 6 additional cameras in 2009. These cameras are installed on 8 of the 90 signalized intersections in the city. Over the years many cameras were temporarily turned off for months at a time due to construction activities. The city does not use speed camera ATE.

The camera locations are:

2005 installations

- -W Broadway/35th St eastbound
- -W Broadway/21st St westbound
- -W Broadway/16th St eastbound and westbound -W Broadway/8th St eastbound and westbound
- -S 7th St/Willow Ave southbound

2009 installations

- -W Broadway/25th St eastbound and westbound
- -Kanesville Blvd/Harrison St eastbound and westbound
- -S Expressway/30th Ave eastbound and northbound

All camera locations are permanently marked with advance warning signs that are in conformance to IDOT and MUTCD recommendations. Also the Council Bluffs Police Department Traffic Unit provides information on the "Stop on Red" page of their web site. (http://www.councilbluffs-ia.gov/index.aspx?NID=471). The ATE data is reviewed every year to assure the program is making the streets safer in Council Bluffs.

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761-144.7 Evaluation and reporting.

(1) The red light running problem in Council Bluffs is exacerbated by the proximity to Omaha, Nebraska. Red light running is a very common occurrence in Omaha, which does not have an ATE program. Omaha has several fatalities from red-light running each year. The city of Council Bluffs has a metro area reputation as a place "you do not run red lights, because you will get a ticket." The following is a post from city-datum forum a few years ago:

pheaton

Quote:

Location: Omaha, NE 1,048 posts, read 1,174,274 times Reputation: 204

Originally Posted by rezfreak

Pfft like the cops in omaha pull you over for running a red light anyway



This is true. . People in Omaha run red lights like the world is coming to an end. Most people don't even realize it, because they think it's normal. Next time you are at a busy intersection count how many people go through the left arrow light after it's out or red. 3, 4? maybe 5.

Rate this post positively

Read more: http://www.city-data.com/forum/omaha/1083335-traffic-red-light-camerasomaha-safety.html#ixzz2xfWjgb4f

While this post hardly scientifically quantifies the problem of red-light running in Omaha it does illustrate a popular perception and common observation of the problem. In 2013 43% of the citations issued by the Council Bluffs ATE program were issued to Nebraska vehicles, matching the 43% issued to lowa vehicles.

The ATE program has been in place in Council Bluffs since 2005. It has permanently changed the aggressive driver behavior in the city. Attachment A1 is a table showing by intersection tickets issued annually by ATE. Attachment A2 is a graphic depiction of this data. The general trend is that the number of violations decreases over time. This suggests that ATE modifies driver behavior to avoid red light running.

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- (2) Attachment B1 is a Summary of Collisions at ATE locations by major cause. The collisions are aggregated into totals for the two sets of base years: those installed in 2005 and those installed in 2009. Attachment B2 is a table showing Collisions pre-ATE and for 2013 at each camera monitored approach. The camera monitored approaches installed in 2005 show a total collision reduction of 23% in 2013 from base year of 2004. For the approaches with cameras installed in 2009, a total collision increase of 15% was observed in 2013 from the base year of 2008. Variation in annual collisions is to be expected due to the many causes. For ATE systems that have been in place for several years, a simple comparison of pre-ATE year and current year statistics may not accurately characterize collision trends.
- (3) The city's ATE cameras were installed prior to the requirement of a justification report. The selection of intersections for ATE was originally based on collision history and observed measurement of red light running occurrences. Attachment C1 shows 2013 Ranking of All Intersections in the city for Red Light Running Accidents. Attachment C2 is the 2013 Ranking of All Intersections in the city for Total Accidents. The city has 8 intersections with 1 or 2 legs monitored by ATE red light cameras. Six of these 8 intersections are in the top 15 intersections in the city for total accidents (attachment C2). The two remaining intersections that have ATE cameras are located adjacent to schools and are ranked 28th and 60th. The city has determined that these two schools located on higher volume, higher speed state routes warrant the continued use of ATE for red light running due to safety concerns for children. The same 6 intersections in the top 15 for total accidents are ranked 7th, 12th, 19th, 28th, 31st, and 34th for red light running accidents (attachment C1). The two intersections at schools had no red light running accidents in 2013. This information suggests that the intersections with camera enforcement are high accident locations but the presence of the cameras reduces the incidence of red light running accidents in comparison to non ATE intersections.
 - (4) See Attachment A1 for annual totals
- (5) The city's red light camera program is photograph based therefore calibration of the system is not applicable. The determination of a violation is based on photographic evidence that the vehicle is behind the stop bar when the signal is red and a second photo of the vehicle in the intersection when the light is red. See Attachment D for support information.

ANNUAL CITATIONS PER LOCATION Attachment A1 Table

Attachment A2
Graph

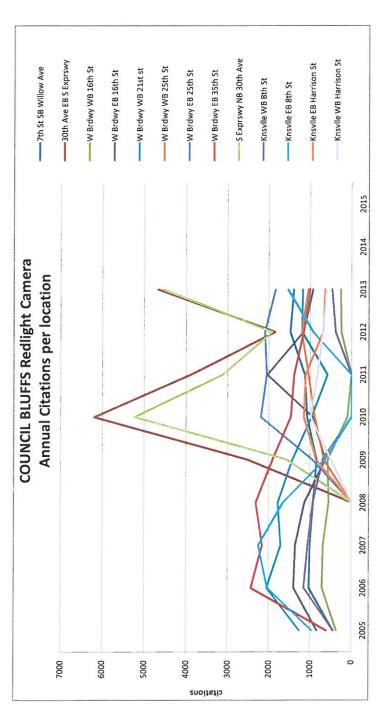
ATTACHMENT AI

ANNUAL CITATIONS PRINTED per LOCATION Council Bluffs Red Light Camera Program 3/18/2014

	TOTAL	4885	10797	10229	9293	13740	21191	17173	15008	20130)	
Knsvlle WB	Harrison St	0	0	0	0	493	991	829	269	009)	
Knsvile EB	Harrison St	0	0	0	0	828	1153	1110	689	638		
Knsvlle EB	8th St	926	2032	2253	1656	650	0	0	925	1536		
Knsvlle WB	8th St	438	1154	1060	936	969	0	0	381	470		
S Exprswy NB Knsvlle WB	30th Ave	0	0	0	0	1560	5237	3129	1917	4546		
W Brdwy EB	35th St	603	2427	2157	2316	1911	1472	1388	1161	1013		
	25th St	0	0	0	0	938	2188	2048	2094	1838		
W Brdwy WB	25th St	0	0	0	0	661	890	1040	1202	1052		
W Brdwy WB W Brdwy WB	21st st	1262	2050	1707	1777	1426	362	578	1197	1180		
_	16th St	830	1396	1359	1134	635	931	2030	1168	933		
W Brdwy WB	16th St	329	711	989	545	269	100	0	242	261		
30th Ave EB	S Exprswy	0	0	0	0	2505	6196	3896	1848	4664		
7th St SB	Willow Ave	437	1027	1007	929	838	1071	1125	1487	1399		
		2002	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015

program started aug 2005
 added 6 cameras sept 2009
 turned off two cameras at Broadway/8th Nov 2009 for Broadway Viaduct project turned off Broadway/16th WB camera Mar 2010 for Broadway Viaduct project all three cameras turned back on Mar 2012
 turned off two cameras 5 expressway/30th Ave Sept 2011 for constrcuction

turned both cameras back on Sept 2012



1) 30th Ave EB S Exprswy and S Exprswy NB 30th Ave were operational for a full year only in 2010 and 2013.

City of Council Bluffs 4/30/2014

Total and Average Collisions - Initial Group of 7 Monitored Approaches

	2004	Avg/Approach		Avg/Approach	
Major Cause	Pre-ATE	2004	2013	2013	Difference
Animal	1	0.142857143	0	0	-1
Ran Traffic Signal	5	0.714285714	5	0.714285714	. 0
Crossed Centerline	0	0	0	0	0
FTYROW: Making Right Turn on Red Signal	0	0	0	0	0
FTYROW: Making Left Turn	15	2.142857143	5	0.714285714	-10
FTYROW: To Pedestrian	0	0	1	0.142857143	1
FTYROW: Other	1	0.142857143	0	0	-1
Driving Too Fast for Conditions	0	0	2	0.285714286	2
Exceeded Authorized Speed	0	0	0	0	0
Made Improper Turn	0	0	3	0.428571429	3
Followed Too Close	9	1.285714286	3	0.428571429	-6
Reckless/Aggressive	0	0	0	0	0
Swerving/Evasive Action	0	0	0	0	0
Lost Control	0	0	1	0.142857143	1
Inattentive/distracted: Phone	0	0	1	0.142857143	1
Other: Improper Action	0	0	4	0.571428571	4
Unknown	4	0.571428571	1	0.142857143	-3
Other: No Improper Action	0	0	1	0.142857143	1
Totals	35	5	27	3.857142857	-8
			Total perce	ntage change	-22.86%

Total and Average Collisions - 2nd Group of 6 Monitored Approaches

	2008	Avg/Approach2		Avg/Approach	
Major Cause	Pre-ATE	800	2013	2013	Difference
Animal	0	0	0	0	0
Ran Traffic Signal	0	0	2	0.333333333	2
Crossed Centerline	2	0.333333333	1	0.166666667	-1
FTYROW: Making Right Turn on Red Signal	0	0	0	0	0
FTYROW: Making Left Turn	2	0.333333333	3	0.5	1
FTYROW: To Pedestrian	0	0	0	0	0
FTYROW: Other	2	0.333333333	0	0	-2
Driving Too Fast for Conditions	0	0	0	0	0
Exceeded Authorized Speed	0	0	0	0	0
Made Improper Turn	0	0	2	0.333333333	2
Followed Too Close	6	1	5	0.833333333	-1
Reckless/Aggressive	1	0.166666667	0	0	-1
Swerving/Evasive Action	0	0	0	0	0
Lost Control	1	0.166666667	0	0	-1
Inattentive/distracted: Phone	0	0	0	0	0
Other: Improper Action	4	0.666666667	5	0.833333333	1
Unknown	1	0.166666667	4	0.666666667	3
Other: No Improper Action	1	0.166666667	1	0.166666667	0
Totals	20	3.333333333	23	3.833333333	3
			Total perce	ntage change	15.00%

Attachment B1 Summary of Collisions By Major Cause

Attachment B2

Major Cause of Collisions

At Each ATE Approach

Collisions - Pre-ATE and 2013

ATTACHMENT B2

All Monitored Approaches	City of Council Bluffs
All Mo	City of

True True															
7th & Willow Reasonal				8th &			8th &		16th &	16th &	16th &	21st &	21st &	35th &	35th &
Trum on Red Signal Turn an		7th & Willow	7th & Willow	Kanesville		Kanesville	Kanesville			Broadway	Broadway	Broadway		Broadway FB 2004	Broadway FR 2013
tr Turn on Red Signal an		30 2004	20 2013	LD 2004	LU ZUID	100701	CTO7 044		20.20	1007	2010	1000	2	-	
tt Turn on Red Signal Turn an	Major Cause														
tr Turn on Red Signal 1 1 1 2 2 2 2 2 4 2 2 2 4 2 2 2 4 2 2 2 3 4 2 2 2 3 4 2 2 2 2 3 4 2 2 2 2 3 4 2 2 2 2 2 3 4 3 4 2 2 2 3 4	Animal														1
tr Turn on Red Signal 1 9 4 2 2 2 2 4 1	Ran Traffic Signal				1	1	1	2				2	1		
Turn Turn <th< td=""><td>Crossed Centerline</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Crossed Centerline														
Turn 1 9 4 2 2 2 2 2 4 2 2 2 4 2 2 2 4 2 2 2 1	FTYROW: Making Right Turn on Red Signal														
and moditions	FTYROW: Making Left Turn		1			6				2	č	1			
onditions 1	FTYROW: To Pedestrian										,-1	1			
Speed 1 <td>FTYROW: Other</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	FTYROW: Other							1							
Speed 1 2 <td>Driving Too Fast for Conditions</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td>	Driving Too Fast for Conditions								1			1			
ion 1 1 1 1 1 1 2 6 6 1 1 1 2 6 6 6 6 6 7 6 7 6 7 6 7	Exceeded Authorized Speed														
ion 1 1 1 1 2 6 ion	Made Improper Turn			1			2								
ion 1 1 1 i: Phone 1 1 1 on 1 2 1 xction 1 2 1 xction 1 2 1 xction 1 2 1	Followed Too Close		1	Ţ	1		1		1		2	4			1
ion 1 1 1 i: Phone 1 2 1 on 1 2 1 1 xction 1 2 1 1 1 xction 1 2 1 2 3	Reckless/Aggressive														
Si: Phone 1 1 1 1 Sun 1 1 2 1 1 Action 1 2 1 1 1 Action 1 2 10 9 6 7 5 3 Action 3 1 2 1 1 2 1	Swerving/Evasive Action														
Action 1 1 2 2 2 1 <td>Lost Control</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Lost Control								1						
On 1 2 2 2 2 4	Inattentive/distracted: Phone			1											
Action Action 1 2 10 9 6 7 5 3 3 4 5 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5	Other: Improper Action				1				2					1	
Action 1 3 1 2 10 9 6 7 5 3	Unknown										1	1			2
1 3 1 2 10 9 6 7 5 3	Other: No Improper Action						1								
	Total Crashes		1											2	4
7 7	Difference After ATE			2	1		-1		1	1	ı,	2	9	9-	ç.

Collisions - Pre-ATE and 2013

ATACHMENT B2

All Monitored Approaches City of Council Bluffs

						A STATE OF THE STA	The second second					
	Harrison &	0/20	Harrison &	Harrison & Harrison & 25th &		25th &	25th &	25th &	S Expressway	S Expressway S Expressway	SE	xpressway
	Kanesville EB 2008	Kanesville EB2013	Kanesville WB 2008	Kanesville Kanesville WB 2008 WB 2013	Broadway EB 2008	Broadway EB 2013	Broadway WB 2008	Broadway WB 2013	& 30th Ave NB 2008	& 30th Ave NB & 30th Ave NB & 30th Ave EB & 30th Ave EB 2008	& 30th	Ave EB
Major Cause												
Animal												
Ran Traffic Signal				1								
Crossed Centerline												1
FTYROW: Making Right Turn on Red Signal												
FTYROW: Making Left Turn			2 1	1								
FTYROW: To Pedestrian												
FTYROW: Other									2			
Driving Too Fast for Conditions												
Exceeded Authorized Speed												
Made Improper Turn												
Followed Too Close		2	1		1				1	5		-
Reckless/Aggressive					1							
Swerving/Evasive Action												
Lost Control		1										
Inattentive/distracted: Phone												
Other: Improper Action					2			1	1	3		
Unknown									1	2		
Other: No Improper Action						1	0	0	1			
Total Crashes		3	5 2	2 2	4	1	0	1	7	11		4
Difference After ATE			2	0		2		-				

Attachment C1 2013 Ranking of Intersections for Red Light Running Accidents

Attachment C2

2013 Ranking of Intersections for

Total Accidents

2013 Ranking of All Intersections Red-Light Running Accidents per Million Approach Vehicles

ATE Intersections Highlighted

Rank	Intersection	RLR/Mill
1	Pierce St & 1st St	0.547945
2	Broadway & 6th St	0.520201
3	Kanesville & 7th St	0.39223
4	24th St & I-80 East	0.345881
5	Broadway & Frank St	0.342466
6	6th St & Willow Ave	0.326158
7	Kanesville & Harrison St	0.312291
8	Hwy 6 & Sherwood Dr	0.279564
9	9th Ave & 35th St	0.27261
10	Kanesville & 6th St	0.261125
11	9th Ave & I-29 North	0.257638
12	Kanesville & 8th St	0.254047
13	Hwy 6 & McKenzie	0.244618
14	Hwy 6 & College Rd	0.23218
15	Kanesville & Ridge St	0.231866
16	Broadway & 2nd St	0.228311
17	Hwy 92 & Twin City Drive	0.19998
18	16th St & Ave G	0.188908
19	W. Broadway & 16th St	0.171544
20	Broadway & 1st St	0.169119
21	24th St & Hwy 92	0.159676
22	Hwy 92 & Metro Dr	0.157818
23	Nebraska Ave & 35th St	0.155666
24	24th St & I-80 West	0.137779
25	Madison Ave & I-80 West	0.137585
26	S. Expressway & 19th Ave	0.130906 0.124132
27	Kanesville & Frank St	0.124132
28	W. Broadway & 35th St	0.109941
29	Langdon Blvd & Hwy 92	0.109589
30 31	W. Broadway & 18th St W. Broadway & 21st St	0.104172
32	S. Expressway & 23rd Ave	0.100019
33	S. Expressway & 23rd Ave S. Expressway & I-80 West	0.090852
34	S. Expressway & I-80 East	0.076006
35	16th St & Ave B	0.575555
36	16th St & Big Lake Rd	0
37	23rd Ave & 29th St	0
38	23rd Ave & 32nd St	0
39	23rd Ave & MidAmerica Dr	0
40	23rd Ave & Horseshoe Blvd	0
41	24th St & 23rd Ave	0
42	24th St & 27th Ave	0
43	24th St & Downing Dr	0
44	24th St & Marketplace Dr	0
45	6th St & 5th Ave	0
46	7th St & 32nd Ave	0
47	7th St & 5th Ave	0

2013 Ranking of All Intersections Red-Light Running Accidents per Million Approach Vehicles

48	8th St & Ave G	0
49	9th Ave & I-29 South	0
50	9th Ave & Main St	0
51	Bennett Ave & Bonham Ave	0
52	Bennett Ave & Franklin Ave	0
53	Bennett Ave & McPherson Ave	0
54	Broadway & 4th St	0
55	Broadway & 7th St	0
56	Broadway & Glen Ave	0
57	Broadway & Main	0
58	East Pierce St & North Ave	0
59	Hwy 6 & Railroad Hwy	0
60	Hwy 92 & East Manawa Dr	0
61	Hwy 92 & I-29 North	0
62	Hwy 92 & I-29 South	0
63	Hwy 92 & S. 11th St	0
64	Hwy 92 & S. Expressway	0
65	Hwy 92 & Valley View Dr	0
66	Kanesville & 2nd St	0
67	Kanesville & Main St	0
68	Kanesville & North Ave	0
69	Kanesville & Oakland Ave	0
70	Langdon Blvd & E. S. Omaha Bridge Rd.	0
71	Langdon Blvd & L.C. High School Entrance	0
72	Langdon Blvd & L.C. Mid School Entrance	0
73	Langdon Blvd & Woodbury Ave	0
74	Langdon Blvd/3rd St & 16th Ave	0
75	Madison Ave & Bennett Ave	0
76	Madison Ave & I-80 East	0
77	Madison Ave & Rue St	0
78	Madison Ave & Valley View Dr	0
79	Madison Ave & Woodbury Ave	0
80	Mall Dr & Bennett Ave	0
81	Mall Dr & Valley View Dr	0
82	N. 25th St & Ave N/Nash Blvd	0
83	Nebraska Ave & I-29N	0
84	Nebraska Ave & I-29S/River Rd	0
35	S. Expressway & 32nd Ave	0
36	S. Expressway & 35th Ave	0
37	W. Broadway & 28th St	0
38	W. Broadway & 32nd St	0
39	7th St & Willow Ave	0
an.	W Broadway & 25th St	0

2013 Ranking of All Intersections Total Accidents per Million Approach Vehicles

ATE Intersections Highlighted

Rank	Intersection	Total Acc/Mill
1	24th St & 27th Ave	2.283105
2	24th St & I-80 East	1.902347
3	Kanesville & 8th St	1.608963
4	S. Expressway & I-80 East	1.596134
5	24th St & Hwy 92	1.437087
6	Hwy 6 & Sherwood Dr	1.397819
7	6th St & 5th Ave	1.292324
8	W. Broadway & 16th St	1.286578
9	Kanesville & Ridge St	1.275262
10	W. Broadway & 21st St	1.250065
11	9th Ave & 35th St	1.226743
12	W. Broadway & 35th St	1.224434
13	Hwy 6 & McKenzie	1.223092
14	Nebraska Ave & I-29S/River Rd	1.184362
15	Kanesville & Harrison St	1.145066
16	Pierce St & 1st St	1.09589
17	Hwy 92 & I-29 North	1.040534
18	Broadway & 6th St	1.040402
19	Madison Ave & Valley View Dr	1.014713
20	Hwy 92 & Twin City Drive	0.9999
21	24th St & Downing Dr	0.952948
22	16th St & Ave G	0.944538
23	Hwy 92 & S. Expressway	0.918241
24	Kanesville & 7th St	0.915203
25	Hwy 92 & S. 11th St	0.874381
26	24th St & I-80 West	0.826671
27	Kanesville & 6th St	0.783376
28	7th St & Willow Ave	0.768147
29	Kanesville & North Ave	0.761035
30	Langdon Blvd/3rd St & 16th Ave	0.761035
31	7th St & 5th Ave	0.745504
32	Kanesville & Main St	0.71828
33	9th Ave & I-29 South	0.711248
34	W. Broadway & 32nd St	0.682089
35	Hwy 92 & I-29 South	0.652098
36	Hwy 6 & Railroad Hwy	0.639078
37	S. Expressway & I-80 West	0.635962
38	Nebraska Ave & 35th St	0.622665
39	23rd Ave & MidAmerica Dr	0.617983
40	Hwy 92 & Valley View Dr	0.60085
41	S. Expressway & 32nd Ave	0.568408
42	Langdon Blvd & Hwy 92	0.549704
43	9th Ave & I-29 North	0.515277
44	Broadway & 1st St	0.507357
45	S. Expressway & 23rd Ave	0.500096
46	W. Broadway & 28th St	0.494045
47	24th St & 23rd Ave	0.478555

2013 Ranking of All Intersections Total Accidents per Million Approach Vehicles

48 49 50 51 52 53 54 55 56 57 58	Hwy 92 & Metro Dr Hwy 6 & College Rd Broadway & 2nd St 16th St & Ave B Broadway & 7th St Kanesville & 2nd St N. 25th St & Ave N/Nash Blvd Madison Ave & I-80 West Madison Ave & Bennett Ave Broadway & Main Kanesville & Frank St	0.473455 0.46436 0.456621 0.445484 0.434877 0.421951 0.418279 0.412754 0.405885 0.377893 0.372397
59	Bennett Ave & Franklin Ave	0.36049
60	W. Broadway & 25th St	0.354657
61	Langdon Blvd & Woodbury Ave	0.334113
62	S. Expressway & 35th Ave	0.334113
63	W. Broadway & 18th St	0.328767
64 65	East Pierce St & North Ave Broadway & Glen Ave	0.29146 0.273973
65 66	Mall Dr & Valley View Dr	0.273973
66 67	•	0.261811
68	S. Expressway & 19th Ave Langdon Blvd & L.C. High School Entrance	0.258465
69	9th Ave & Main St	0.244618
70	8th St & Ave G	0.220946
71	Madison Ave & Rue St	0.202943
72	Broadway & 4th St	0.195695
73	Bennett Ave & Bonham Ave	0.183874
74	Madison Ave & I-80 East	0.152529
75	Kanesville & Oakland Ave	0.123411
76	16th St & Big Lake Rd	0
77	23rd Ave & 29th St	0
78	23rd Ave & 32nd St	0
79	23rd Ave & Horseshoe Blvd	0
80	24th St & Marketplace Dr	0
81	6th St & Willow Ave	0
82	7th St & 32nd Ave	0
83	Bennett Ave & McPherson Ave	0
84	Broadway & Frank St	0
85	Hwy 92 & East Manawa Dr	0
86	Langdon Blvd & E. S. Omaha Bridge Rd.	0
87	Langdon Blvd & L.C. Mid School Entrance	0
88	Madison Ave & Woodbury Ave	0
89	Mall Dr & Bennett Ave	0
90	Nebraska Ave & I-29N	0

Attachment D Calibration Documents

ATT ACHMENT D

Greg Reeder

To:

Jeffrey Logan

Subject:

RE: Automated Traffic Enforcement (ATE) Requirements

From: Jeffrey Logan [mailto:jlogan@redflex.com]

Sent: Friday, March 21, 2014 10:43 AM **To:** Greg Reeder; Richard Willing **Cc:** Jason Bailey; Don Bauermeister

Subject: RE: Automated Traffic Enforcement (ATE) Requirements

Morning Greg-

After speaking to you on the phone, I looked into this a little more to get some background. Basically what I found was that when it comes to Red light enforcement there is no industry standards of "Calibration" due to the fact that the with Red light enforcement the evidence required to prove a red light violation is in the photographs (being able to see that the light is red, and seeing that the car continued through the intersection when light was red) whereas with speed, we use Doppler radar (that isn't evident in the photos).

One of the many safeguards that we have in place to ensure our systems are working accordingly is a Certificate of Correct Functioning (CCF). A CCF is generated along with every incident. The document certifies that an automated verification routine was performed in the ordinary and normal course of business on the above-designated camera system and that the alarms described below were not triggered as of the time and date of the violation, ticket, or citation indicated above. The computer-automated alarm verification routine is performed automatically one (1) time per day, every day. The system would not have captured an incident if any of the alarms listed below had been triggered. I hope this helps

ALARM DESCRIPTION AND DETECTI

ALARM DESCRIPTION:

ALARM TRIG

- 1) Invalid Computer Authentication
- 2) Computer Memory Capacity Exceeded
- 3) Software Program Malfunction
- 4) Repeated Software Program Malfunction
- 5) Invalid Computer Time-Clock

Account Representative

Redflex Traffic Systems, Inc.

1700 N. Farnsworth Ave., Suite 13

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AUTOMATICALLY GENERATED CERTIFICATE OF CORRECT FUNCTIONING

VIOLATION - TICKET - CITATION

Date/Time: 12/9/2013 8:31:48AM

City/State/Approach Location: COU-EX30-01

Incident Number: 179281035

Violation/Ticket/Citation Identification No.: CR00121824

This computer generated Certificate of Correct Functioning documents that an automated verification routine was performed in the ordinary and normal course of business on the above-designated camera system and that the alarms described below were not triggered as of the time and date of the violation, ticket, or citation indicated above. The computer-automated alarm verification routine is performed automatically one (1) time per day, every day. The system would not have captured an incident if any of the alarms listed below had been triggered.

The alarms described below operate on the above-designated camera system, camera housing and containers and/or the related electronic components or computers. The computer-automated alarm verification routine detects and records a specific type of interruption, disruption, and/or stoppage of system operations which would trigger or activate the alarms.

The information and data contained herein is stored on a secured computer server owned and operated by Redflex Traffic Systems, Inc. located in Phoenix, Arizona.

ALARM DESCRIPTION AND DETECTION

ALARM DESCRIPTION:	ALARM TRIGGERED: Yes or No
1) Invalid Computer Authentication	No
2) Computer Memory Capacity Exceeded	No
3) Software Program Malfunction	No
4) Repeated Software Program Malfunction	No
5) Invalid Computer Time-Clock	No

Redflex Traffic Systems, Inc. 23751 N. 23rd Ave, Suite 150, Phoenix, Arizona 85085

Attachment E Iowa Administrative Code Chapter 144

Automated Traffic Enforcement on the Primary System

CHAPTER 144 AUTOMATED TRAFFIC ENFORCEMENT ON THE PRIMARY ROAD SYSTEM

761—144.1(307) Purpose. The purpose of this chapter is to establish requirements, procedures, and responsibilities in the use of automated traffic enforcement systems on the primary road system. This chapter ensures consistency statewide in the use of automated traffic enforcement systems on the primary road system and pertains to fixed and mobile automated enforcement.

[ARC 1260C, IAB 1/8/14, effective 2/12/14]

761—144.2(307) Contact information. Information relating to this chapter may be obtained from the Office of Traffic and Safety, Iowa Department of Transportation, 800 Lincoln Way, Ames, Iowa 50010. [ARC 1260C, IAB 1/8/14, effective 2/12/14]

761—144.3(307) Definitions. As used in this chapter:

"Automated enforcement" means the use of automated traffic enforcement systems for enforcement of laws regulating vehicular traffic.

"Automated traffic enforcement system" means a system that operates in conjunction with an official traffic-control signal, as described in Iowa Code section 321.257, or a speed measuring device to produce recorded images of vehicles being operated in violation of traffic or speed laws.

"High-crash location" means a location where data indicates a greater frequency or higher rate of crashes when compared with other similar locations within the local jurisdiction, other like jurisdictions, or larger metropolitan area.

"High-risk location" means a location where the safety of citizens or law enforcement officers would be at higher risk through conventional enforcement methods.

"Interstate roads" means the same as defined in Iowa Code section 306.3.

"Local jurisdiction" means a city or county.

"Primary road system" means the same as defined in Iowa Code section 306.3. [ARC 1260C, IAB 1/8/14, effective 2/12/14]

761—144.4(307) Overview.

144.4(1) General.

- a. Automated enforcement shall only be considered after other engineering and enforcement solutions have been explored and implemented.
- b. An automated traffic enforcement system should not be used as a long-term solution for speeding or red-light running.
- c. Automated enforcement should only be considered in extremely limited situations on interstate roads because they are the safest class of any roadway in the state and they typically carry a significant amount of non-familiar motorists.
- d. Automated enforcement shall only be considered in areas with a documented high-crash or high-risk location in any of the following:
- (1) An area or intersection with a significant history of crashes which can be attributed to red-light running or speeding.
 - (2) A school zone.

144.4(2) Applicability.

- a. These rules apply only to local jurisdictions using or planning to use automated enforcement on the primary road system.
- b. The department does not have the authority to own or operate any automated traffic enforcement system.
- c. The department shall not receive any financial payment from any automated traffic enforcement system owned or operated by a local jurisdiction.
- **144.4(3)** Department approval. A local jurisdiction must obtain approval from the department prior to using an automated traffic enforcement system on the primary road system. [ARC 1260C, IAB 1/8/14, effective 2/12/14]

761—144.5(307) Automated traffic enforcement system request.

- **144.5(1)** Justification report. A local jurisdiction requesting to use an automated traffic enforcement system on the primary road system shall provide the department a justification report. A licensed, professional engineer knowledgeable in traffic safety shall sign the justification report.
- a. The justification report shall provide all necessary information and documentation to clearly define the area, provide evidence documenting why the area is a high-crash or high-risk location, and describe the process used to justify the automated traffic enforcement request.
 - b. At a minimum, the justification report shall:
- (1) Document existing traffic speeds, posted speed limits, traffic volumes, and intersection or roadway geometry. Provide assurance that existing speed limits and traffic signal timings are appropriate and describe how they were established.
- (2) Document applicable crash history, the primary crash types, crash causes, crash severity, and traffic violations. Only crashes attributable to speeding or the running of a red light shall be included in this report. Compare crash data with other similar locations within the local jurisdiction, other like jurisdictions, or larger metropolitan area.
- (3) Identify the critical traffic safety issue(s) from the data in subparagraphs 144.5(1) "b"(1) and (2) above and provide a comprehensive list of countermeasures that may address the critical traffic safety issue(s).
- (4) Document solutions or safety countermeasures that have been implemented along with those that have been considered but not implemented. These may include law enforcement, engineering, public education campaigns, and other safety countermeasures.
- (5) Document discussions held and actions taken with partnering agencies that have resources which could aid in the reduction of crashes attributable to speeding or the running of a red light.
- (6) Document why the local jurisdiction believes automated enforcement is the best solution to address the critical traffic safety issue(s).
 - c. If the request is for a mobile automated enforcement system, the justification report shall also:
 - (1) Include a description of the mobile unit.
- (2) Include the proposed duration of use at each location and indicate where the unit will be physically placed relative to the curb, shoulder, median, etc.
- **144.5(2)** Request to department. The local jurisdiction shall submit a request and a justification report to the appropriate district engineer.
- 144.5(3) Department review. Within 90 days of receipt of the request and a complete justification report, the department will either approve or deny specific automated enforcement locations. The department may need additional response time if collection of data is needed, such as conducting a speed study. Incomplete justification reports will be returned to the local jurisdiction. The department will review the request and justification report, evaluate the process used, and determine if the proposed automated traffic enforcement system is needed and warranted. If approval to proceed is granted to the local jurisdiction, the department shall prepare an agreement which will be signed by the department and the local jurisdiction.
- 144.5(4) *Public notice*. Once the department receives a request and a complete justification report from a local jurisdiction, the department may notify the public and include information on the department's Web site.

 [ARC 1260C, IAB 1/8/14, effective 2/12/14]
- 761—144.6(306,307,318,321) Minimum requirements for automated traffic enforcement systems. The following minimum requirements must be met for each automated traffic enforcement system.

144.6(1) Safe environment for motorists.

- a. Any fixed or mobile automated traffic enforcement system must not create a potentially unsafe environment for motorists.
 - b. The system shall:
 - (1) Be installed and maintained in a safe manner.

- (2) Be located where it does not impede, oppose or interfere with free passage along the primary highway right-of-way.
 - (3) Be located where it does not create a visual obstruction to passing motorists.
 - (4) Not be placed or parked on any shoulder or median of any interstate highway.
- (5) Not be placed or parked within 15 feet of the outside traffic lane of any interstate highway, unless shielded by a crashworthy barrier.
- (6) Not be placed or parked on the outside shoulder of any other primary highway for longer than 48 hours unless shielded by a crashworthy barrier.
- (7) Not be placed or parked within 2 feet of the back of the curb of a municipal extension of any primary road.
 - (8) Be placed in a manner to avoid creating traffic backups or delays.
- (9) Not be placed nor operational within the defined limits of any construction or maintenance work zone.
 - (10) Not be placed within the first 1,000 feet of a lower speed limit.

144.6(2) Signage.

- a. Permanent signs may be posted on primary access roads entering local jurisdictions that use automated enforcement technology.
- b. For all fixed automated traffic enforcement systems, permanent signs shall be posted in advance of the locations where enforcement systems are in use to advise drivers that cameras are in place.
- c. For mobile automated traffic enforcement systems, temporary or permanent signs advising that speed is monitored by automated traffic technology shall be posted in advance of the enforcement area as agreed to by the department and the local jurisdiction.
- d. All signing shall be in accordance with the "Manual on Uniform Traffic Control Devices," as adopted in 761—Chapter 130.

144.6(3) Enforcement.

- a. If used, automated enforcement technology shall be used in conjunction with conventional law enforcement methods, not as a replacement for law enforcement officer contact.
- b. Mobile automated traffic enforcement systems in a vehicle shall be owned and operated by a law enforcement agency, be marked with official decals, and have an "official" license plate affixed to the vehicle.
- 144.6(4) Calibration. Automated traffic enforcement systems require periodic calibration to ensure accuracy and reliability. Calibration shall be conducted by a local law enforcement officer, trained in the use and calibration of the system, at least quarterly for fixed systems and prior to being used at any new location for mobile systems.

[ARC 1260C, IAB 1/8/14, effective 2/12/14]

761—144.7(307) Evaluation and reporting.

144.7(1) Annual evaluation. Annually, each local jurisdiction with active automated enforcement on Iowa's primary highway system shall evaluate the effectiveness of its use.

- a. At a minimum, the evaluation shall:
- (1) Address the impact of automated enforcement technology on reducing speeds or the number of red-light running violations for those sites being monitored.
- (2) Identify the number and type of collisions at the sites being monitored, listing comparison data for before-and-after years. If the system includes intersection enforcement, only the monitored approaches should be included in the evaluation.
- (3) Evaluate and document the automated traffic enforcement system's impact on addressing the critical traffic safety issue(s) listed in the justification report if a justification report was part of the system's initial approval process.
- (4) Provide the total number of citations issued for each calendar year the system has been in operation.
 - (5) Certify that the calibration requirements of subrule 144.6(4) have been met.
 - b. Reserved.

144.7(2) Reporting requirements. The annual evaluation shall be reported to the department's office of traffic and safety at the address listed in rule 761—144.2(307) by May I each year following a full calendar year of operation and shall be based on performance for the previous year.

[ARC 1260C, IAB 1/8/14, effective 2/12/14]

761—144.8(307) Continued use of automated traffic enforcement system.

144.8(1) Reevaluation. The department will utilize information collected from the annual evaluation reports from local jurisdictions to assist in evaluating the continued need for such systems at each location. Continued use will be contingent on the effectiveness of the system, appropriate administration of it by the local jurisdiction, the continued compliance with these rules, changes in traffic patterns, infrastructure improvements, and implementation of other identified safety countermeasures.

144.8(2) Reserve the right. The department reserves the right to require removal or modification of a system in a particular location, as deemed appropriate.

[ARC 1260C, IAB 1/8/14, effective 2/12/14]

761—144.9(307) Appeal process. A local jurisdiction may appeal a decision made by the department as part of this chapter by submitting a written explanation of the issue and any supporting information to the director of transportation. Once the director receives the appeal, the director shall have 30 days to respond. The director's decision is final agency action.

These rules are intended to implement Iowa Code chapter 318 and sections 306.4, 307.12, 321.348 and 321.366.

[ARC 1260C, IAB 1/8/14, effective 2/12/14]

[Filed ARC 1260C (Notice ARC 1037C, IAB 10/2/13), IAB 1/8/14, effective 2/12/14]